Master Plan Policy Paper #3-A:
Strategies to Enhance Higher Education Access through E-learning

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ISSUE AREA

The use of electronic technologies to enhance access to postsecondary education.

POLICY ISSUE

What initiatives will foster use of electronic technologies to enhance postsecondary education in Washington State?

STUDY QUESTIONS

- How can the state leverage its investment in the K-20 Network to expand educational opportunities?

- How can e-learning technologies be used to support a learner-centered system?

- How could traditional practices be realigned to integrate electronic learning into the traditional learning environment?

INTRODUCTION

Washington State is a recognized leader and innovator in applying information technologies to matters of public policy. In 1997 and 1998 the state won the coveted "Digital State" award from the Progress and Freedom Foundation, in association with the publication *Government Technology*. The foundation noted that Washington State uses technology to eliminate barriers between departments so that when citizens interact with state agencies, the transactions are smooth.

According to @ccesswashington, winning this award "validates Governor Gary Locke's priority to make government more responsive and efficient by using technology to help citizens get better service from their government."[1]

It is fitting, therefore, for the state's education institutions to take a parallel approach in serving the education needs of its citizens. In the "Digital State," advanced information and learning technologies can make education more accessible, responsive, and efficient. And technology can

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[1] http://access.wa.gov/news/news0912.asp 5/10/99

help students focus on their learning objectives and education goals while reducing the barriers to achieving them.

The 1996 Master Plan acknowledged technology's new and growing role in providing instruction, and raised a number of key questions regarding investment, productivity and student learning.

Since then, the use of technology in instruction has continued to grow and to consume ever-greater amounts of budgets, staff time, and resources. The state is installing the K-20 Network, which provides infrastructure designed to meet Washington's diverse needs. It allows "students and educators in every community to use the Internet, video-conferencing and satellite-delivered video programs to share information, conduct research and communicate with one another without the traditional constraints of time, distance or resources."[2]

Distance learning options have been particularly attractive for those seeking new strategies to expand access to higher education in a restricted budget environment. However, the cost of incorporating technology may be more of a challenge than originally expected. Early discussions lead to the hope that investments in technology would yield economies of scale and diminishing marginal costs once the basic infrastructure was in place. However these savings are proving to be elusive — if not non-existent.

In fact, technology does not replace costs, it simply adds another kind of cost to the equation. In some cases it may change the nature of costs, but there is no evidence that total costs do anything but keep growing. Heavy reliance on technology may reduce the need for bricks and mortar expenses, but increase the costs of acquiring equipment, upgrading equipment, developing coursework, technical support, student services, and information and communication costs. This is not to say technology should not be integrated into higher education as both a quality and access tool, but it is to say that that these tremendous opportunities will not come at bargain prices.

Education is not about wires and infrastructure or bits and bytes. It is not about computers or connectivity. Education is about people and ideas and processes and progress. It is about giving people the tools and understanding they need to lead richer and more productive lives. Washington's vision for electronic learning must therefore go beyond a static understanding of a technological environment — one that could radically change with each new technological breakthrough — to a systemic approach to e-learning that demands innovation, quality, vision, and collaboration to serve our learners and our economy.

How can the state leverage its investment in K-20 to expand educational opportunities?
Electronic learning technologies provide instructional opportunities in many ways, whether on campus or at a distance. Faculty use electronic technologies, for example, to support campus-based classes through web pages, online resources, and electronic discussion groups. Off-campus, the World Wide Web can deliver entire courses to the distance learner. Some schools

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[2] http://www.wa.gov/K20/

teach classes away from their home campus and take advantage of two-way interactive video to connect faculty and students.

The K-20 network enables institutions to interconnect bringing digital transmission capacity to the doorstep. This is analogous to bringing electricity to the home. The capacity is of little use without the internal wiring or the appliances that make use of the electrical current. In order to take advantage of K-20, the state will need to leverage its initial investment in the network by fostering collaboration and resource sharing, and by supporting the learning communities that use K-20's digital resources.

Foster coordination among education sectors and shared use of learning facilities.
There are a host of locations around Washington State where people go to learn. Each of the public baccalaureate institutions has branch sites in some form, whether established branch campuses, rural learning centers, or resources found in towns, communities or neighborhoods. Some of these operate jointly with community colleges and their many off-site centers, while others rely on community libraries or health facilities; still others are classrooms and computer labs in rented storefronts and old schools.

In addition, many communities have created their own computer labs to provide Internet access for their citizens. Phase I of the K-20 system provided Internet connectivity to school districts throughout the state. But connectivity and infrastructure are not enough. Aggregation and shared use of these makes sense. The state could leverage investments in technology and infrastructure by taking inventory of existing sites, including state-run facilities and those available through non-profit organizations and industry. Then a coordinated effort could be made to help these sites leverage their human, technical and instructional resources in a coordinated fashion to serve the lifelong learning needs of Washington's citizens. Rather than build new buildings, the state could contract with such facilities to become distributed learning centers with the technical and human resources to provide educational resources and student services, including enrollment, advising, technical support, student mentoring, and computer labs or electronic classrooms.

Phases I and II of the K-20 network provided connectivity to public schools and colleges throughout the state. To help the state realize the potential of its initial investment and take full advantage of this new resource, operational and organizational components will be needed. Additional hardware, software, support staff and training, as well as creative ways to share responsibility for site operations and accessibility, are some of the issues that will need to be addressed. By organizing and sharing resources, for example, college classes could be offered in empty high school classrooms at night; community college classes could fill (predominantly daytime) unused capacity at branch campuses.

Although there are many existing facilities, currently, the host institutions must individually maintain and supply them. Coordination exists within the K-12, community and technical college, and baccalaureate sectors but not *among* them. Some rooms and labs are heavily used and in high demand, while others lie fallow for lack of incentive, interest, or funding. In addition, whenever an institution wishes to use a shared facility, it must individually coordinate and

contract with the host. The HECB could assist by taking inventory and coordinating a resources utilization assessment to help maximize use of existing facilities.

Capital funding decisions could encourage and prioritize shared use of facilities and facilitate physical change or expansion that supports e-learning. While some institutions have excess capacity, others are too full. Some existing or potential facilities need to be redesigned or spaces retrofitted to maximize their usefulness. The state's capital funding priorities and K-20 planning could provide incentives for institutions to collaborate in the development of new capacity (physical space, infrastructure, and technology) within existing facilities.

E-learning facilities could be recognized and funded as capital expenditures. If technological infrastructure is to extend the capacity of existing facilities and serve growing or under-served communities, then the cost of technological infrastructure investments could be similarly funded. Until now, the costs of computers and learning labs have been funded in a number of ways — often through special subsidies, and external funding. To be sustainable, technology must not be viewed as an "add-on" when funds are available, but incorporated in the capital planning for instructional capacity.

HOW CAN E-LEARNING TECHNOLOGIES BE USED TO SUPPORT A LEARNER-CENTERED SYSTEM?

Prudent combination of digital and human resources will help the state provide students and families with information about education opportunities. Coordination of information and data keeping practices will help institutions realign their administrative practices to support e-learning.

With existing technology, students today in theory should be able to enroll or learn anytime, anywhere. To achieve this goal, first the state would need to provide students and parents complete information on available education programs by career or academic goal, geographic area, and institution.

The state also would need to provide students with "one-stop shopping" through electronically supported enrollment services. A shared web site and database of available classes and programs would integrate and market the state's instructional offerings and student services through a coordinated intake and referral system. Such a system could incorporate advising, financial aid, and enrollment assistance in addition to listing courses and programs. Some of this effort could be supported through resources on the K-20 network. These, in turn, could be supplemented with human and technical support at distributed learning centers. The organization, management, and personnel required to coordinate such a system would require the commitment of all state institutions and centralized funding to support the effort.

Institutions in the digital state also, theoretically, have the ability to coordinate their administrative and instructional information systems. The information age could facilitate consistent data management and warehousing practices across institutions. To that end,

administrative systems for record management and credit transfer could be coordinated across institutions and sectors.

On the instructional side, consistently coded information systems could make course data accessible for prospective students and their advisors. Such data would assist the state in tracking program developments such as delivery methods and student retention. Once in place, such practices would create efficiencies for both students and institutions and would support statewide online access to classes and services.

Statewide, student services could be handled through a clearinghouse with cross-trained student service technicians. Currently, student services are campus- or institution-based; student credits are re-evaluated if the student wishes to transfer credits among institutions. In a shared intake environment, backed up by a comprehensive data-base, personnel could focus on the human-to-human aspects of helping students follow many pathways to a degree or certificate. This would require that student services personnel receive cross-training to support shared intake and recruitment efforts.

Once the online environment is created, it will be important to use multiple media to reach students and their parents. It is not enough simply to create a web site or intake unit and wait for people to find it. A focused information and outreach effort throughout the state would help ensure that potential students know where to find information about the state's higher education opportunities. This would be particularly critical for learners in rural areas where education facilities are few and far between. This outreach effort would identify and leverage information partnerships with K-12 schools, libraries, and employment and community centers. This information "campaign" would continuously promote the availability of the online and centralized resources through all media, including print, radio, television, and online.

Using e-learning technologies to serve non-traditional learners and those in rural areas.
Non-traditional learners may find education programs more accessible if they were offered in compressed, revolving, or alternative scheduling that maximizes use of time on site, and makes use of technological delivery of instruction wherever feasible.

The state could encourage and support partnerships with industry to install and support short-term or revolving specialized learning facilities. This could include a "loaned executive" project to supply managers and faculty for niche market programs such as computer science education.

E-learning technologies can help institutions revolve programs among institutions and geographic locations. For example, institutions could offer specialized degree programs at three locations over six years. Nursing, social work, or environmental programs could reach cohorts of rural learners on a revolving basis.

In 1971 the New York Board of Regents founded Regents College. This institution offers no instruction, but it helps individuals get degrees based on assessment and testing. When a student needs to develop specific competencies for a degree, the institution helps the student find the courses required, favoring opportunities in the student's home state. Now that courseware is

widely available online, and with the advent of Western Governor's University, a state-run clearinghouse could help students coordinate, aggregate, and certify their credentials.

Integrating e-learning technologies into the traditional learning environment?
The HECB recognizes that electronic learning is only one of many pathways to knowledge. There will always be the need for traditional campuses, faculty-student contact, seminars, socialization learned in on-campus life, and the synergism of an intellectual learning community. But there also will be a new feature in this environment that allows faculty to reach out across distance and time, and interact with those who cannot come to the campus.

E-learning is a supplement to traditional teaching and learning strategies; it is a tool for instruction. Students, staff, and faculty need support and resources to achieve equivalent outcomes and quality no matter the means of instruction. Faculty are critical to high-quality e-learning, just as they are to a world-class traditional learning environment.

Administrative components of a traditional campus are critical to the success of e-learning. But a learner-centered instructional environment requires administrative systems that minimize barriers to student success. Content and interaction can take place through the World Wide Web; illustrations and lessons can be delivered via video tape or CD-ROM. Yet student schedules and course design are still required to fit frameworks defined by contact hours and seat time.

Some students achieve competencies or absorb course materials more quickly than others. E-learning can provide asynchronous self-paced materials enabling the student to shorten their time-to-degree. In a traditional learning context, time and place set the framework to measure student progress. In the e-learning environment, students have many ways to gain competencies. Schools can use alternative methods to assess both prior learning and competencies in a given subject or field. The state could establish and review pilot programs to test alternatives to FTE-based funding to encourage use of these new measures.

Clearly, e-learning provides new opportunities for enhancing access to postsecondary education. But if e-learning is to be embraced as an accepted, viable, way of learning, then one challenge for the state will be to determine an affordable, predictable tuition policy for distance learning. Currently Washington State has no set policy on what tuition rate could be charged students who are engaged in distance learning. Among other policy questions, Washington needs to determine whether its tuition policies – especially those associated with self-supported distance learning programs – create additional financial obstacles for students.

And institutions and the state budget policy will need to understand that higher education faculty and staff are "knowledge" workers. Over the next ten years they will need continuous training and retooling to keep up with the changes in the new information economy. Faculty and staff development is simply the cost of keeping a top-flight workforce and could be built into hiring and retention practices and planning.

Similarly, to encourage faculty to embrace and integrate the new opportunities available through technology, faculty should be rewarded for innovation and scholarship in instructional

development. Traditional faculty reward systems focus on scholarship and research. A student-centered system also would reward faculty for effective teaching and the development of new teaching methods, and for excellence in instructional development. Staff similarly should be recognized and rewarded for innovative use of technology that enhances students' access to data and services.

Meeting the special needs of distance learners.
Electronic learning technology offers new strategies to meet the education needs of underserved learners in the most remote areas of our state. But to serve rural, place-bound and time-bound students may require first the realignment of organizational practices and procedures.

Some distance learners aggregate courses from various institutions while they work toward degrees, or when they are attending school on a part-time basis. Washington's financial aid rules could be reviewed in the light of changing federal policies and constraints placed on distance learners and then realigned to serve the needs of non-traditional learners. Distance learners also need library and research services no matter where they study. The state could partner with regional libraries to provide resources for distance learners

Additionally institutional residency policies may create obstacles to rural learners achieving their goals. Residency policies are those that require learners to take a minimum number of at a given institution in order to earn a degree from that institution. Requirements that include actual presence on campus, or "continuous enrollment" may unnecessarily inhibit student's ability to complete degree programs in a modern technological world.

SUMMARY: STRATEGIES TO ENHANCE HIGHER EDUCATION ACCESS THROUGH E-LEARNING

As a "digital state," Washington is well positioned to use its digital network capacity to enhance quality in and access to higher education. It is in the interest of the citizens of the state to leverage existing investment in the K-20 system to assure that the connectivity and capacity are fully utilized.

To achieve this goal, the state, through the leadership of the HECB, may want to consider the following actions:

- *Inventory existing facilities and their operational capacity to ascertain the level of need for additional learning centers throughout the state.* Such centers could become community-based resources for access to higher education by providing technical resources such as internet access, electronic classrooms, computer labs as well as human resources for enrollment, financial aid, career/instructional matching and library services

- *Build mechanisms for cross-sector facilities management and support, and set capital funding policies to reflect the state's needs for shared use of facilities and infrastructure.* If

e-learning is to function in lieu of "bricks and mortar," then the infrastructure and resources that make this possible must be funded as physical facilities.

- *Coordinate data reporting and management practices to facilitate a statewide database of instructional opportunities.* Advances in information technology can support learners and enhance the learning environment. Better information about courses and programs is an important starting place.

- *Integrate electronic learning into the traditional learning environment.* Methods for granting credentials, funding formulas in support of alternative learning systems, tuition and financial aid policies for distant learners are only some of the practices that could be examined.

- *Provide incentives to encourage faculty and staff to pursue the professional development needed to work productively in an E-learning environment.*